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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/384,108	08/27/1999	MICHAEL ANTHONY DOYLE	T8464929US	7387
46127	7590	09/20/2005	EXAMINER	
HEENAN BLAIKIE LLP P. O. BOX 185, SUITE 2600, 200 BAY STREET SOUTH TOWER, ROYAL BANK PLAZA TORONTO, ON M5J 2J4 CANADA			SHAH, CHIRAG G	
			ART UNIT	PAPER NUMBER
			2664	

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/384,108	DOYLE ET AL.	
	Examiner	Art Unit	
	Chirag G. Shah	2664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5,6,13,14 and 17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-6,13,14, and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 5, 13, 14, 16 and 17, rejected under 35 U.S.C. 103(a) as being unpatentable over Alexander (U.S. Patent No. 6,272,120) in view of Cheston et al. (U.S. Patent No. 6,405,259).

Referring to claims 1 and 13, Alexander discloses in figures 1-3 of a communication for facilitating communication between a wired network [LAN 126 of figure 1] and wireless device [first and second wireless client bridge/access points of figure 1 and claim 1], the wireless devices including a first mobile wireless device [first client bridge/access point figure 1 and claim 1] and a second mobile wireless device [second client bridge/access point figure 1, claim 1 and as disclosed in col. 5, lines 61 to col. 6, lines 12], the first wireless device being configured for communication using a first communication protocol [Frequency Hopping as disclosed in col. 5, lines 23-60 and abstract], the second wireless device being configured for communication using with a second communication protocol [Direct Sequence-PN codes as disclosed in col. 5, lines 23-60 and abstract] different from the first communication protocol, the method comprising the steps of:

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at a communication device [Multi-radio bridge 100 of figure 1], receiving data from the wired network [LAN 126 of figure 1] for reception by one of the mobile wireless devices [first client bridge/access point of figure 1], the communication device including a first radio [operating at different FH sequence as in the abstract and claims 1&5] configured for communication with the first mobile device [first client bridge/access point of figure 1], via the first communication protocol [FH as disclosed in col. 5, lines 23-60 and in claim 5], and a second radio [operating in DS as disclosed in col. 5, lines 23-60 and in claims 1&6] configured for communication with the second mobile wireless device [second client bridge/access point of figure 1] via the second communication protocol [DS as in claim 6]; and

Alexander further discloses in column 10, lines 41 to column 11, line 9 of

Controlling [multi-radio bridge 100 controls the traffic] data traffic in (system 120) between the wired network (126) and the wireless devices (162, 170, 176 etc...), the data controlling step comprising the steps of:

(i) receiving from the wired network data intended for reception by one of the mobile wireless devices [as discloses in col. 10, lines 41-49 that when a device 140 desires to communicate with Device 162, it must send a packet 200 to the multi-radio bridge (communications controlling device)],

(ii) selecting one of the radios the one radio being configured for communication with the one mobile wireless devices [as further disclosed in col. 10, lines 41 to col. 11, lines 9, the multi-radio bridge processor will first read the source address field 208 and the destination address field 214 of the packet and then place the entire packet 200 in the data field of a shell packet. The multi-radio initiates a broadcast to all client bridges 166

via all of its radios 250, upon receiving an acknowledgement response from the client-bridge 166 of the destination device, the multi-radio bridge can learn the route and forward the packet to the acknowledged client bridge using the (one selected) radio that is associated with the client-bridge]

(iii) transmitting all the received data directly to the one mobile wireless device via the selected radio [as disclosed in col. 10, lines 41 to col. 11, lines 9, once the multi-bridge processor learns of the destination route via a received acknowledgment, the multi radio bridge processor routes the packet to the radio associated with the destination mobile device address via the selected radio from now and in the future].

Alexander, however explicitly fails to disclose *wherein the received data includes wireless protocol information that indicates a wireless protocol used for communicating the data to the one mobile wireless device, and the selecting step comprising select the one radio in accordance with the communication protocol associated with the received data.*

Cheston discloses in col. 3, lines 3-44 and of transmitting a network packet to the network controller. The network packet includes the particular protocol type which the client utilizes. Cheston further discloses in figure 2 and in col. 3, lines 25-44 and col. 4, lines 21-45 of a PCI-ISA bridge controller which functions as a network controller having a filter that has been programmed to pass/route only selected network packet with a particular protocol type and ignores all other packets in the particular radio having a different protocol type. This establishes that the controller receives a network packet having group identifier, protocol information type the particular client uses, which the

controller uses to filter and select the system (radio type) to pass the packet to the destination. Therefore, it would have been obvious to one of ordinary skills in the art at time of the invention was made to include packet identifying the protocol type as taught by Cheston into Alexander's invention in order to minimize processing latency and increasing efficiency of transferring packets based on protocol type.

Referring to claims 2 and 14, Alexander discloses in column 10, lines 44-54 and in figures 1 and 2 wherein

the wireless devices are each assigned a respective address [as disclosed in col. 10, lines 44-54 and in figure 2, since the multi-radio bridge 100 reads the source address field 208 and destination address 214 in order to route the packet], and the received data includes the address of the respective mobile wireless device [as disclosed in col. 10, lines 44-54 and in figure 2, when the multi-radio bridge 100 receives that a device 140 desires to communicate with device 162, the packet 200 includes both a source address and the respective mobile wireless device's destination address]; and

the data controller is configured to route the received data to the respective radio in accordance with the address included in the received data [as disclosed in col. 10, lines 41 to col. 11, lines 9, once the multi-bridge processor learns of the destination route via a received acknowledgment, the multi radio bridge processor routes the packet to the radio associated with the destination mobile device address from now and in the future] as claim.

Referring to claims 5 and 17, Alexander discloses in col. 5, lines 23 to col. 6, lines 23 wherein the first radio (may use FH, claim 50 has a first radio coverage area [see figure 1], and the second radio [may use DS of claim 6] has a second radio coverage area [see figure 2], and a size of the second radio coverage area is different than a size of the first radio coverage area [configuration with respect to the size of the radio coverage area may vary based on configuration parameters as disclosed in col. 6, lines 3-23] as claims.

3. Claim 6 rejected under 35 U.S.C. 103(a) as being unpatentable over Alexander in view of Cheston as applied to claims 1, 2, 5, 13, 14 and 17 above, and further in view of Warren et al (U.S. Patent No. 5,912,921)

Referring to claim 6, Alexander discloses in figure 2 and in claim 6 of the wireless radio utilizing Direct Sequence Spread Spectrum Protocol. Alexander in view of Cheston fails to explicitly disclose wherein one of the communications protocols is in accordance with the IEEE 802.11 specification. Warren discloses in col. 1, lines 28-42 and col. 7, lines 44-52 of utilizing a DS channel reservation mechanism as that defined by the IEEE 802.11 standard. Thus, the DSSS is one of the communications protocol in accordance to IEEE 802.11 standard. Therefore, it would have been obvious to one having ordinary skills in the art at the time the invention was made to include the teaching of IEEE 802.11 standard for one of the radio devices as taught by Warren into Alexander in view of Cheston's invention in order to provide standard of specification and compatibility parameter ensure the highest throughput.

Response to Arguments

4. Examiner accepts Applicant's decision to cancel claims 3, 7-12, 15 and 18-20.
5. Applicant's arguments with respect to claims 1 and 13 have been considered but are moot in view of the new ground(s) of rejection.
6. Applicant's arguments filed 7/8/05 have been fully considered but they are not persuasive. Applicant argues that Cheston did not provide any example of network other than a wired network. Examiner respectfully disagrees and directs Applicant to col. 3, lines 45-60, where Cheston clearly discloses any type of data communication network may be incorporated in the invention. A wireless network is an example of any type of network. Applicant further argues that Cheston would not suggest to the person of ordinary skill modifying the dual-radio bridge 100 of Alexander to select the appropriate radio for transmission of data to a wireless device based on communication protocol. Examiner respectfully disagrees and redirects Applicant to Cheston reference, specifically to figure 2 and in col. 3, lines 25-44 and col. 4, lines 21-45 where the controller having a filter routes selected packets based on the protocol type the particular client utilizes and identifies the system (radio) to be used for transmission of data based on the identified communications protocol, thus minimizing the processing latency and increasing efficiency of transferring packets. Therefore, claims 1 and 13 respectfully remain unpatentable based on Alexander in view of Cheston.
7. a PCI-ISA bridge controller which functions as a network controller having a filter that has been programmed to pass/route only selected network packet with a particular protocol type and ignores all other packets in the particular radio having a different protocol type. Therefore, it would have been obvious to one of ordinary skills in the art at time of the invention was made to

include packet identifying the protocol type as taught by Cheston into Alexander's invention in order to minimize delay and increasing efficiency of transferring packets based on protocol type.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chirag G. Shah whose telephone number is 571-272-3144. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 571-272-3134. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cgs
September 9, 2005


Ajit Patel
Primary Examiner